

WHAT IS CLAIMED IS:

1. An isolated nucleic acid molecule comprising a nucleotide sequence selected from the group consisting of:
- 5 a) a nucleotide sequence having at least 70% sequence identity with the nucleotide sequence set forth in SEQ ID NO:2;
- b) a nucleotide sequence having at least 70% sequence identity with the nucleotide sequence set forth in SEQ ID NO:4;
- 10 c) a nucleotide sequence consisting of at least 20 contiguous nucleotides of the nucleotide sequence set forth in SEQ ID NO:2;
- d) a nucleotide sequence consisting of at least 20 contiguous nucleotides of the nucleotide sequence set forth in SEQ ID NO:4;
- e) a nucleotide sequence encoding the amino acid sequence set forth in SEQ ID NO:1,
- 15 f) a nucleotide sequence encoding the amino acid sequence set forth in SEQ ID NO:3,
- g) a nucleotide sequence encoding a fragment of the amino acid set forth in SEQ ID NO:1, wherein said fragment consists of at least 15 contiguous amino acids of SEQ ID NO:1;
- 20 h) a nucleotide sequence encoding a fragment of the amino acid set forth in SEQ ID NO:3, wherein said fragment consists of at least 15 contiguous amino acids of SEQ ID NO:3;
- i) a nucleotide sequence encoding a variant of the amino acid sequence set forth in SEQ ID NO:1, wherein said nucleotide sequence hybridizes to the
- 25 nucleotide sequence set forth in SEQ ID NO:2 under stringent conditions;
- j) a nucleotide sequence encoding a variant of the amino acid sequence set forth in SEQ ID NO:3, wherein said nucleotide sequence hybridizes to the nucleotide sequence set forth in SEQ ID NO:4 under stringent conditions; and
- k) a nucleotide sequence complementary to at least one of the
- 30 nucleotide sequences set forth in a), b), c), d), e), f), g), h), i), or j).

2. The isolated nucleic acid molecule of claim 1, wherein said nucleic acid molecule comprises a nucleotide sequence selected from the group consisting of:

- a) the nucleotide sequence set forth in SEQ ID NO:2;
- 5 b) the nucleotide sequence set forth in SEQ ID NO:4;
- c) a nucleotide sequence encoding the amino acid sequence set forth in SEQ ID NO:1;
- d) a nucleotide sequence encoding the amino acid sequence set forth in SEQ ID NO:3;
- 10 e) a nucleotide sequence complementary to a nucleotide sequence of a), b), c), or d).

3. The nucleic acid molecule of claim 1, wherein said nucleic acid molecule further comprises vector nucleic acid sequences.

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4. The nucleic acid molecule of claim 1, wherein said nucleic acid molecule further comprises nucleic acid sequences encoding a heterologous polypeptide.

5. A host cell containing the nucleic acid molecule of claim 1.

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6. The host cell of claim 5, wherein said host cell is a mammalian host cell.

7. A nonhuman mammalian host cell containing the nucleic acid molecule of claim 1.

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8. An isolated polypeptide comprising an amino acid sequence selected from the group consisting of:

- a) the amino acid sequence of a fragment of the amino acid sequence set forth in SEQ ID NO:1, wherein the fragment comprises at least 15 contiguous amino acids of the amino acid sequence set forth in SEQ ID NO:1,
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b) the amino acid sequence of a fragment of the amino acid sequence set forth in SEQ ID NO:3, wherein the fragment comprises at least 15 contiguous amino acids of the amino acid sequence set forth in SEQ ID NO:3,

5 c) the amino acid sequence of a variant of the amino acid sequence set forth in SEQ ID NO:1, wherein said variant is encoded by a nucleic acid molecule that hybridizes to the complement of the nucleotide sequence set forth in SEQ ID NO:2 under stringent conditions;

d) the amino acid sequence of a variant of the amino acid sequence set forth in SEQ ID NO:3, wherein said variant is encoded by a nucleic acid molecule  
10 that hybridizes to the complement of the nucleotide sequence set forth in SEQ ID NO:4 under stringent conditions;

e) the amino acid sequence of a variant of the amino acid sequence set forth in SEQ ID NO:1, wherein said variant is encoded by a nucleotide sequence having at least 70% sequence identity with the nucleotide sequence set forth in SEQ ID  
15 NO:2; and

f) the amino acid sequence of a variant of the amino acid sequence set forth in SEQ ID NO:3, wherein said variant is encoded by a nucleotide sequence having at least 70% sequence identity with the nucleotide sequence set forth in SEQ ID  
20 NO:4.

9. The isolated polypeptide of claim 8, wherein said polypeptide comprises an amino acid sequence selected from the group consisting of:

a) the amino acid sequence set forth in SEQ ID NO:1; and  
b) the amino acid sequence set forth in SEQ ID NO:3.  
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10. The polypeptide of claim 8, wherein said polypeptide further comprises heterologous amino acid sequences.

11. An antibody which selectively binds to a polypeptide of claim 8.  
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12. A method for producing a polypeptide selected from the group consisting of:
- a) the amino acid sequence of a fragment of the amino acid sequence set forth in SEQ ID NO:1, wherein the fragment comprises at least 15 contiguous amino acids of the amino acid sequence set forth in SEQ ID NO:1,
  - b) the amino acid sequence of a fragment of the amino acid sequence set forth in SEQ ID NO:3, wherein the fragment comprises at least 15 contiguous amino acids of the amino acid sequence set forth in SEQ ID NO:3,
  - c) the amino acid sequence of a variant of the amino acid sequence set forth in SEQ ID NO:1, wherein said variant is encoded by a nucleic acid molecule that hybridizes to the complement of the nucleotide sequence set forth in SEQ ID NO:2 under stringent conditions;
  - d) the amino acid sequence of a variant of the amino acid sequence set forth in SEQ ID NO:3, wherein said variant is encoded by a nucleic acid molecule that hybridizes to the complement of the nucleotide sequence set forth in SEQ ID NO:4 under stringent conditions;
  - e) the amino acid sequence of a variant of the amino acid sequence set forth in SEQ ID NO:1, wherein said variant is encoded by a nucleotide sequence having at least 70% sequence identity with the nucleotide sequence set forth in SEQ ID NO:2; and
  - f) the amino acid sequence of a variant of the amino acid sequence set forth in SEQ ID NO:3, wherein said variant is encoded by a nucleotide sequence having at least 70% sequence identity with the nucleotide sequence set forth in SEQ ID NO:4;
- wherein said method comprises culturing a host cell comprising a nucleotide sequence encoding said polypeptide under conditions in which the polypeptide is expressed..

13. The method of claim 12, wherein said polypeptide comprises an amino acid sequence selected from the group consisting of:

- a) the amino acid sequence set forth in SEQ ID NO:1; and

- b) the amino acid sequence set forth in SEQ ID NO:3.

14. A method for detecting the presence of a polypeptide in a sample comprising the steps of contacting the sample with a compound that selectively binds to the polypeptide and determining whether the compound binds to the polypeptide in the sample, wherein said polypeptide is selected from the group consisting of:
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- a) the amino acid sequence of a fragment of the amino acid sequence set forth in SEQ ID NO:1, wherein the fragment comprises at least 15 contiguous amino acids of the amino acid sequence set forth in SEQ ID NO:1,
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- b) the amino acid sequence of a fragment of the amino acid sequence set forth in SEQ ID NO:3, wherein the fragment comprises at least 15 contiguous amino acids of the amino acid sequence set forth in SEQ ID NO:3,
- c) the amino acid sequence of a variant of the amino acid sequence set forth in SEQ ID NO:1, wherein said variant is encoded by a nucleic acid molecule that hybridizes to the complement of the nucleotide sequence set forth in SEQ ID NO:2 under stringent conditions;
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- d) the amino acid sequence of a variant of the amino acid sequence set forth in SEQ ID NO:3, wherein said variant is encoded by a nucleic acid molecule that hybridizes to the complement of the nucleotide sequence set forth in SEQ ID NO:4 under stringent conditions;
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- e) the amino acid sequence of a variant of the amino acid sequence set forth in SEQ ID NO:1, wherein said variant is encoded by a nucleotide sequence having at least 70% sequence identity with the nucleotide sequence set forth in SEQ ID NO:2; and
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- f) the amino acid sequence of a variant of the amino acid sequence set forth in SEQ ID NO:3, wherein said variant is encoded by a nucleotide sequence having at least 70% sequence identity with the nucleotide sequence set forth in SEQ ID NO:4.

15. The method of claim 14, wherein the compound which binds to the polypeptide is an antibody.

16. A kit comprising a compound which selectively binds to a polypeptide and instructions for use, wherein said polypeptide is selected from the group consisting of:

- a) the amino acid sequence of a fragment of the amino acid sequence set forth in SEQ ID NO:1, wherein the fragment comprises at least 15 contiguous amino acids of the amino acid sequence set forth in SEQ ID NO:1,
- b) the amino acid sequence of a fragment of the amino acid sequence set forth in SEQ ID NO:3, wherein the fragment comprises at least 15 contiguous amino acids of the amino acid sequence set forth in SEQ ID NO:3,
- c) the amino acid sequence of a variant of the amino acid sequence set forth in SEQ ID NO:1, wherein said variant is encoded by a nucleic acid molecule that hybridizes to the complement of the nucleotide sequence set forth in SEQ ID NO:2 under stringent conditions;
- d) the amino acid sequence of a variant of the amino acid sequence set forth in SEQ ID NO:3, wherein said variant is encoded by a nucleic acid molecule that hybridizes to the complement of the nucleotide sequence set forth in SEQ ID NO:4 under stringent conditions;
- e) the amino acid sequence of a variant of the amino acid sequence set forth in SEQ ID NO:1, wherein said variant is encoded by a nucleotide sequence having at least 70% sequence identity with the nucleotide sequence set forth in SEQ ID NO:2; and
- f) the amino acid sequence of a variant of the amino acid sequence set forth in SEQ ID NO:3, wherein said variant is encoded by a nucleotide sequence having at least 70% sequence identity with the nucleotide sequence set forth in SEQ ID NO:4.

17. A method for detecting the presence of a nucleic acid molecule in a sample, the method comprising the steps of contacting the sample with a nucleic acid

probe that hybridizes to the nucleic acid molecule under stringent conditions, and determining whether the nucleic acid probe binds to a nucleic acid molecule in the sample, wherein said nucleic acid molecule is selected from the group consisting of:

- a) a nucleotide sequence having at least 70% sequence identity with the nucleotide sequence set forth in SEQ ID NO:2;
- b) a nucleotide sequence having at least 70% sequence identity with the nucleotide sequence set forth in SEQ ID NO:4;
- c) a nucleotide sequence consisting of at least 20 contiguous nucleotides of the nucleotide sequence set forth in SEQ ID NO:2;
- d) a nucleotide sequence consisting of at least 20 contiguous nucleotides of the nucleotide sequence set forth in SEQ ID NO:4;
- e) a nucleotide sequence encoding the amino acid sequence set forth in SEQ ID NO:1,
- f) a nucleotide sequence encoding the amino acid sequence set forth in SEQ ID NO:3,
- g) a nucleotide sequence encoding a fragment of the amino acid set forth in SEQ ID NO:1, wherein said fragment consists of at least 15 contiguous amino acids of SEQ ID NO:1;
- h) a nucleotide sequence encoding a fragment of the amino acid set forth in SEQ ID NO:3, wherein said fragment consists of at least 15 contiguous amino acids of SEQ ID NO:3;
- i) a nucleotide sequence encoding a variant of the amino acid sequence set forth in SEQ ID NO:1, wherein said nucleotide sequence hybridizes to the nucleotide sequence set forth in SEQ ID NO:2 under stringent conditions;
- j) a nucleotide sequence encoding a variant of the amino acid sequence set forth in SEQ ID NO:3, wherein said nucleotide sequence hybridizes to the nucleotide sequence set forth in SEQ ID NO:4 under stringent conditions; and
- k) a nucleotide sequence complementary to at least one of the nucleotide sequences set forth in a), b), c), d), e), f), g), h), i), or j).

18. The method of claim 17, wherein the sample comprises mRNA molecules.

19. A kit for use in the method of claim 17, wherein said kit comprises a compound which selectively hybridizes to at least one nucleic acid molecule of claim 1  
5 and instructions for use.

20. A method for identifying a compound which binds to a polypeptide of claim 8, said method comprising the steps of:  
a) contacting a polypeptide, or a cell expressing a polypeptide of  
10 claim 8 with a test compound; and  
b) determining whether the polypeptide binds to the test compound.

21. The method of claim 20, wherein the binding of the test compound to the polypeptide is detected by a method selected from the group consisting of:  
15 a) detection of binding by direct detecting of test compound/polypeptide binding;  
b) detection of binding using a competition binding assay;  
c) detection of binding using an assay for programmed cell death protein-like-mediated activity.

22. A method for modulating the activity of a polypeptide of claim 8 comprising contacting a polypeptide or a cell expressing a polypeptide of claim 8 with a compound which binds to the polypeptide in a sufficient concentration to modulate the activity of the polypeptide.  
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23. A method for identifying a compound which modulates the activity of a polypeptide of claim 8, comprising:

- a) contacting a polypeptide of claim 8 with a test compound; and
  - b) determining the effect of the test compound on the activity of the
- 5 polypeptide to thereby identify a compound which modulates the activity of the polypeptide.